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Another powerful machine tool, a horizontal machine for two-sided turning of necks on hydroturbine blades, is now being tested.

Both machine tools will effect a sudden reduction in handling time and a fourfold increase in the speed of cutting metal on large parts. Machine tool control is automatic in both cases.

TEST TWO-SIDED TURNING MACHINE FOR HYDROTURBINE BLADES -- Leningradskaya Pravda, 19 Feb 53

A new-type, high-production, two-sided turning machine (obtochnyy stanok) developed at the Leningrad Machine Tool Building Plant imeni Sverdlov is the largest in the USSR. It is intended for machining huge turbine blades for the Kuybyshevskaya and Stalingradskaya GES..

This is not an ordinary machine. Its bed is 15 meters long and it weighs 65 tons. Parts up to 7 meters long and 8 tons in weight can be machined on it.

Until recently, turbine blades had been machined on lathes. Furthermore, even a highly skilled worker could not obtain the necessary accuracy on the workpiece, and labor productivity was low. On ordinary lathes the workpiece rotates, which makes it difficult to build up speed if the part is eccentric. On the new turning machine, the workpiece is stationary and the cutters, mounted in a tool-holder plate, rotate. This increases the cutting speed ten times and assures a high degree of accuracy with high productivity.

The design of the unique machine was developed by the plant's design bureau in cooperation with scientists of the Polytechnical Institute imeni M. I. Kalinin.

The assembly of the powerful machine has been completed and testing is now under way. In the near future it will be installed at the hydroturbine shop of the Leningrad Metal Plant imeni Stalin.

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